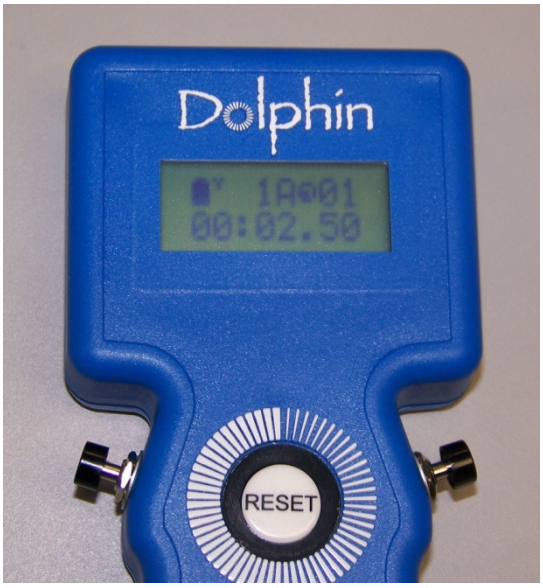
Dolphin

Patent: 7,821,876

Wireless Stopwatch Timing System



User Guide

Colorado Time Systems®

F912 Rev 201106

Colorado Time Systems

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Information in this manual is subject to change without notice. Pictures and illustrations may not accurately depict your version. Please check our website for the most current information; our user manuals are available online in the customer service section of our website.

FCC Compliance Statement:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interface, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Part Number F912, Rev. 201106
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Table of Contents

Introduction 1
How to Use this Manual 1
Theory of Operation 1
Overview for setting up and using the Dolphin System: 1
Initial Set Up 3
Software Installation 3
Software Set Up 3
Dolphin Standalone Operation (Sports Timer not used) 3
Dolphin with Sports Timer (System 6 or System 5) 3
Hardware Set Up 4
Setting up the Base 4
Setting up the Starter 4
Setting up the Stopwatches 6
Regular Operation 7
Computer Operator Instructions 7
Forced Reset 7
Dolphin as Primary Timing System (Standalone Operation -- Sports Timer not used) 8
Dolphin as Backup; Sports Timer as Primary Timing System (System 6 or 5) 10
How to Select a Data Set for your Meet 11
Starting Official Instructions 12
Electronic Start System 12
Synchronized Start/Manual Stop 12
Lane Timer Instructions 13
Synchronized Start (from Electronic Start System or Dolphin Starter) 13
Blanking your lane 13
Wireless Manual Start/Stop 14
Watch Operation 14
Blanking your lane 14
Troubleshooting 15
Dolphin Device Updates 18

Introduction

Thank you for purchasing a Dolphin system! This system of wireless stopwatches makes running a swim meet much easier and faster. It has been designed to interface seamlessly with various meet management software programs; contact your software vendor about compatibility of their program and Dolphin. Please note that knowledge of your meet management software is required to use Dolphin effectively.

How to Use this Manual

If you like to start with an overview of the process, and refer to the manual only when you need it, see the Theory of Operation and the Overview below.

If you like step-by-step instructions, turn to **Initial Set Up**, beginning on page 3, and start there. After the step-by-step Software and Hardware instructions, there are separate instructions for what needs to be done during the meet by the Lane Timers, the Starting Official, and the Computer Operator.

Theory of Operation

The Dolphin system includes

- Dolphin Software to be loaded on the meet management computer (Windows XP or higher required). The software accepts the information from the Base unit and writes files that can be accessed by meet management software.
- A Wireless Stopwatch for each Lane Timer. Watches can be started automatically via the Starter, or started individually for Manual Start/Stop backup times.

- A Wireless Starter
    - Can be used to start all of the Stopwatches with a synchronized start
    - Can be connected to an electronic start system (CTS Infinity or Championship Start System, for example). In this case, the start impulse from the electronic start system will start the watches automatically.

- A Base unit, which is connected to the meet management computer with a standard USB cable (included with the Dolphin system). The Base unit receives information from the starter and the lane watches

Overview for setting up and using the Dolphin System:

1. Confirm that your meet management software supports Dolphin, and is installed on the computer you will be using. If it is not, follow the software provider's instructions for installing it.
2. Install the Dolphin software from the CD. Refer to Software Installation on page 3.
3. Configure your meet management software to use the Dolphin System. Refer to Software Set Up beginning on page 3 for details.

4. Set up the Dolphin hardware the way you will be using it. Refer to Hardware Set Up beginning on page 4.
5. At least a day before the first meet, practice with the Dolphin system so you are familiar with what to do. Refer to the Computer Operator Instructions (page 7), Starting Official Instructions (page 12) and Lane Timer Instructions (page 13). You may also find the Troubleshooting section useful (page 15).
6. Note that there are separate instruction sheets for the Starting Official and Lane Timers, and a sheet of Dolphin Basics. These instructions describe only what each of those individuals need to do with their part of the Dolphin system. Many facilities find it useful to print extra copies of these pages to use in training those individuals. This manual was loaded on your computer (CTSDolphin\DOCS folder) when you installed the software. The most recent version is available at dolphin.coloradotime.com, and on our website (www.coloradotime.com), in the customer service section.

Initial Set Up

Software Installation

1. Ensure that your meet management software is installed on the computer you will be using for Dolphin. If not, install it first.
   NOTE: If you have questions regarding using your meet management software, please see the help files within the software, or contact your software vendor.

2. Download and install the latest updates for your meet management software.
3. Install Dolphin from CD:
   a. Insert the CD into your CD drive. It should begin installation automatically. If it does not, go to the CD drive file listing, and double-click on InstallCTSDolphin
   b. NOTE: When installing Dolphin on a machine running Vista operating system, you may see a warning saying, "This program might not have installed correctly." Simply select "This program installed correctly" and the installation will complete properly.

Software Set Up

There are two ways Dolphin can be used as far as meet management software is concerned. Choose the method your facility will be using and follow the instructions below.

Dolphin Standalone Operation (Sports Timer not used)

In this mode, the Dolphin wireless watches are the primary times for results, and a sports timer is not used.

1. Connect base unit to computer with USB cable, and open your meet management software.
2. If required by your meet management software, configure it for Colorado Time Systems Dolphin as the primary timing system.

Dolphin with Sports Timer (System 6 or System 5)

If you are using a sports timer (CTS System 6 or System 5, for example) in addition to Dolphin, you may need a backup mode in your meet management software. For example, Hy-Tek's Meet Manager requires the Dolphin Backup Mode Option, which is sold separately by Hy-Tek. Contact Hy-Tek for details (Shop online at www.hy-tekltd.com or call 866.456.5111). Other software packages may have their own specific requirements.

In this mode, the Dolphin wireless stopwatches are the backup watches, while the touchpads and buttons are the primary timing system.

1. Connect base unit to computer with USB cable, and open your meet management software.
2. If required by your meet management software, configure it for CTS Dolphin as the backup mode
3. Configure your software for the primary timing system.

Hardware Set Up

Setting up the Base

1. Connect base unit to computer with a standard USB cable (included with the Dolphin system).
2. Open the Dolphin interface, and set the channel on the base:
   - Click the Channel box in the lower left corner of the screen
   - Select the desired channel

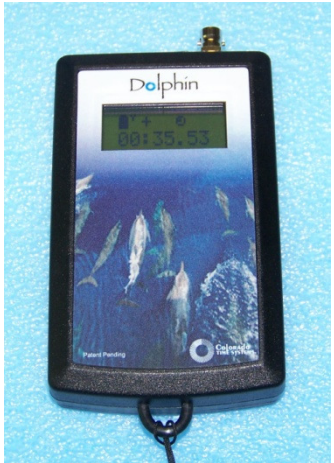
Setting up the Starter

There are three ways to use Dolphin to *start* timing a race. Choose the method your facility will be using and follow the instructions below. The Starter has a small cylindrical BNC connector on top (see picture below).

Method 1: Wireless Manual Start/Stop

Wireless Manual Start/Stop means that the Dolphin wireless stopwatches are used strictly like standard stopwatches: each Lane Timer uses the Dolphin watch to start, stop and reset individually. The data is transmitted wirelessly to the base, and stored on the laptop for access by your meet management software. This method meets all ruling bodies' (FINA, NCAA, USS, NFHS, YMCA) requirements for backup timing.

To set up for this method, put the Dolphin Starter back in the case. It is not used for wireless manual start/stop. Go on to Setting up the Stopwatches beginning on page 6.



Method 2: Synchronized Start/Manual Stop

Synchronized Start/Manual Stop means that the Starting Official starts all watches simultaneously with the Dolphin Starter, and the Lane Timers stop them individually.

1. To set up for this method, turn the Dolphin Starter on (press and hold the Reset button).
2. Enter the menu (press and hold both buttons).
3. Once in the menu, press Reset to advance to the CHAN setting.
4. Press Start/Stop to change the channel to the same number as the Dolphin base.
5. Press Reset to exit the menu.

Method 3: Electronic Start System

When using Dolphin with an electronic start system, such as the CTS Infinity or Championship Start System, the Dolphin Starter is connected to the electronic start system with a cable. When the Starting Official starts the race with the electronic start system, the watches are started simultaneously. The Lane Timers stop them individually.

1. To set up for this method, turn the Starter on (press and hold the Reset button).
2. Enter the menu (press and hold both buttons).
3. Once in the menu, the first setting is TRIG. Press Start/Stop to select the correct trigger style for your start system:
   - TRIG = CTS for use with CTS electronic start system
   - TRIG = NC for use with a normally-closed electronic start system
4. Press Reset to advance to the CHAN setting.
5. Press Start/Stop to change the channel to the same number as the Dolphin base.
6. Press Reset to exit the menu
7. Follow the instructions for your electronic start system:
   - ***CTS Infinity Start System***
   - Connect your Dolphin Starter to the Infinity Start System's ***Start Output*** jack with the Dolphin Starter to Infinity Kit (K-DSS-1). **DO NOT** plug the Dolphin Starter cable into any other jacks.
   - The start impulse from the Infinity will start the lane watches automatically.

   - ***CTS Championship Start System***
   - Connect your Dolphin Starter to the Champ Start's ***Timer Start*** jack with the Dolphin Starter to Champ Start Kit (K-DSS-2). **DO NOT** plug the Dolphin Starter cable into any other jacks.
   - The start impulse from the Champ Start will start the lane watches automatically.

Setting up the Stopwatches

Follow these steps for each watch to be used at a meet:

1. Turn the watch on (press and hold the Reset button).
2. Enter the menu (press and hold the Reset button and either of the side buttons).
3. Once in the menu, the first setting is LANE. Press a side button to change the lane for this watch, and then press Reset to advance to the next menu option.
4. Press a side button to select the TIMER for this lane (A, B or C), and then press Reset to advance to the next option.
5. Press a side button to select the channel number. This MUST match the channel on the starter and the base.
6. Press Reset to exit the menu.

Watches will show up on the Dolphin screen when set.

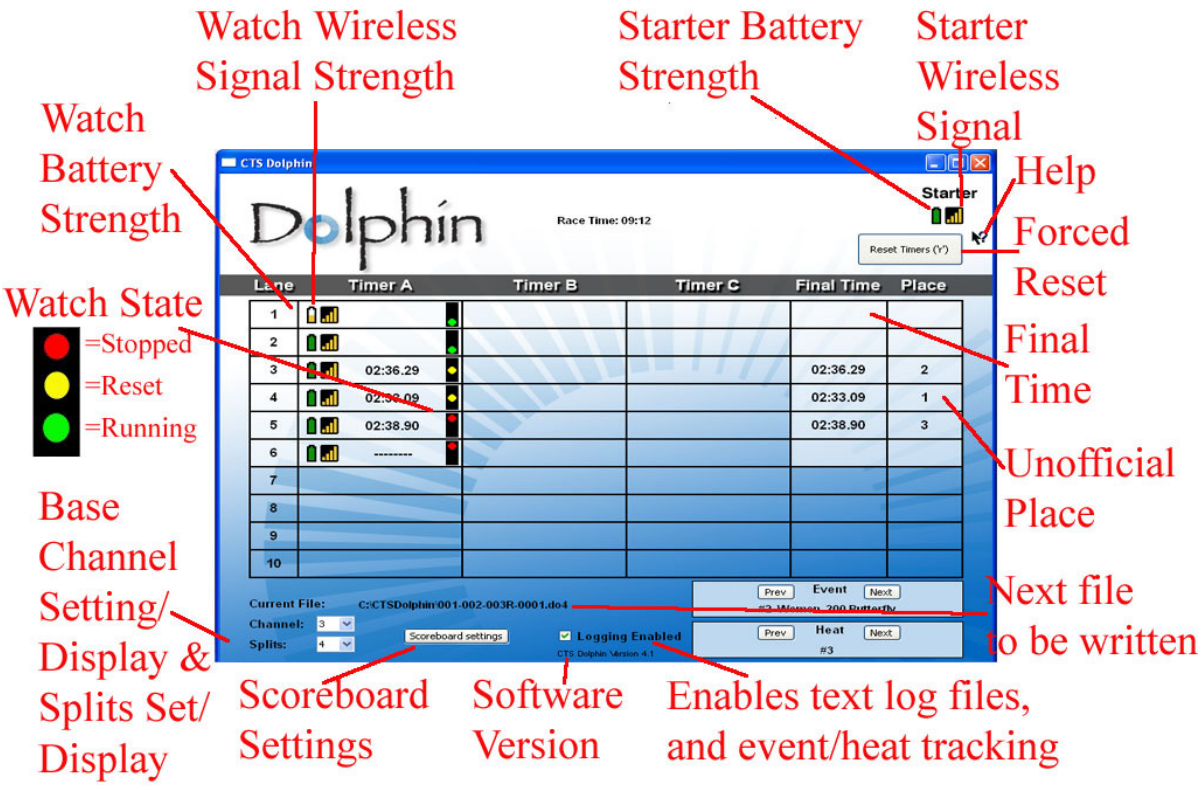
Regular Operation

This section describes the regular operation of the Dolphin system at a meet.

There are separate instructions for the Computer Operator, the Starting Official, and the Lane Timers, describing only what that individual needs to do. This way, each can refer to his or her specific section to know what to do. Many facilities find it useful to print extra copies of Starting Official and Lane Timer pages to use in training those individuals. This manual is available at Dolphin.coloradotime.com, and on the customer service section of our website (www.coloradotime.com).

Computer Operator Instructions

There are two ways Dolphin can be used as far as meet management software is concerned: standalone, or with a sports timer. Follow the instructions for the method your facility is using.



Dolphin Screen -- DO NOT CLOSE THIS WINDOW while using Dolphin. It's OK to minimize it.

Forced Reset

The Reset Timers button (shortcut r) is in the upper right corner of the screen. Use it to force a reset only if one or more lane timers, or the starting official if using the Dolphin Starter, have failed to press reset and the next race is about to begin. You can tell if a watch has been

reset because it will have a yellow light showing in the watch state column on the Dolphin screen.

Before forcing a reset, make sure the race is actually finished. If you force a reset while a watch is still running, there will be no final time recorded in the results file for that watch. However, splits for any watches that were taken will be recorded as long as Dolphin thinks at least one watch finished the race.

Confirm Set Up

Look at the Dolphin screen. There should be a yellow light showing for each lane that has a wireless watch assigned to it (see image on page 7). If you are using the starter, its icon should be displayed in the upper right corner. If all watches and starter being used are not displayed correctly, review the Software Set Up and Hardware Set Up sections, and ensure that your system is set up properly.

If using a scoreboard, click the **Scoreboard Settings** button in the lower part of the Dolphin screen and verify the settings for your scoreboard.

Use the **Logging Enabled** button and the **Splits** button to display and log splits and event/heat information. This information can be set manually or updated automatically from meet management software.

The times.txt file will only be appended if “logging enabled” is checked on the Dolphin run screen. The files that meet management software uses (.d03 and .d04 files) will always be made.

Dolphin as Primary Timing System (Standalone Operation -- Sports Timer not used)

In this mode, Meet Manager treats the Dolphin wireless watches as the primary times for results. This Interface mode is built into MM at no extra charge.

Make sure your lane timers and starting official are trained.
When using the Dolphin Starter, the result file is written when the Starting Official presses Start/Stop and then Reset. If lane timers also press Reset, additional files will be written.

When not using the Dolphin Starter, the result file is written after ALL lane timers press Start/Stop and then Reset. Extra Reset presses could result in extra files; if a lane timer fails to press Reset, the result file won’t be written unless you intervene with the Forced Reset button (see Forced Reset, page 7, above).

Splits
Make sure your lane timers know whether to take splits. The lane timers should press Start/Stop one time for each split. Up to 10 splits can be recorded per race.

After the Race

– If Using Dolphin Starter

After the race, the Starting Official will press Start/Stop and then Reset on the Dolphin Starter. Reset causes the Dolphin software to write the result file to the C:\CTSDolphin folder on the computer and the next race can be started.

If the Starting Official fails to press Reset after the race, the watches' state will not have a yellow light. Before the next race, use the Reset Timers button (or shortcut r) to force a reset and cause the Dolphin software to write the result file.

– If NOT Using Dolphin Starter

As each swimmer finishes the race, the Lane Timer(s) in that lane will press one of the side buttons (Start/Stop) and then Reset on the Watch(es) assigned to that lane. After all Lane Timers press Start/Stop at the end of the race and then Reset, the Dolphin software writes the result file to the C:\CTSDolphin folder on the computer and the next race can be started.

If one or more of the lane timers fails to press Reset after the race, that watch's state will not have a yellow light. Before the next race, use the Reset Timers button (or shortcut r) to force a reset and cause the Dolphin software to write the result file.

Getting the Race Results into your meet management software:

Hy-Tek's Meet Manager

1. While on the Run screen in MEET MANAGER, click on **Get Times** (a button on the bar two-thirds of the way down the screen).
2. A list of Dolphin result files for the current **Data Set** (see page 11 for information about data sets) will be displayed with the most recent file at the top.
3. Select the result file and click OK. MM will read the data into the proper lanes, putting the times into the backup columns for the heat. If the backup columns are not showing in the Run menu, press **Ctrl-B**.
   - *If there is one watch per lane*, that time will also be placed in the result column.
   - *If there are 3 watch times for a given lane*, the middle time will be placed in the result column.
   - *If there are two watches for a given lane*, the average will be computed and placed in the result column. The average is computed based on the rule choice selected in **Run / Preferences / Backup Times**. Please note that if there is .3 or more seconds difference between the two watch times, the average result time will NOT be computed and a yellow line will show for this lane. Decide whether to throw out one of the watch times if you determine one of them is way off. If you are OK with the two times, then click **Ctrl-K** to display the watch averaging menu and it will compute the average for you and place it in the result column. If one of the times is no good, delete it and use **Ctrl-K**, or simply type in the time of the one good watch.

If you are keeping track of races by **Race Number** (see discussion below), you can use the Race # button instead of the Get Times button. This button increments itself by 1 automatically and searches the data set of results for a matching race number. This is the

quickest way to get results if you are keeping up with the race numbers. However, if you get erroneous times, you will have to use **Get Times** to find your race.

Splash and other meet management software:
Follow the instructions in your specific meet management software.

Dolphin as Backup;
Sports Timer as Primary Timing System (System 6 or 5)

If you are using a sports timer (CTS System 6 or System 5, for example) in addition to Dolphin, you need to be using a backup mode in your meet management software. Contact your software provider for details and compatibility.

In this mode, the Dolphin wireless watches are the backup watches, while the touchpads and buttons are the primary timing system.

Make sure your lane timers and starting official are trained
When using Dolphin for backup times, the result file is written after ALL lane timers press Start/Stop and then Reset. Extra Reset presses could result in extra files; if a lane timer fails to press Reset, the result file won't be written unless you intervene with the Forced Reset button (see Forced Reset, page 7, above).

Splits
Make sure your lane timers know whether to take splits. The lane timers should press Start/Stop one time for each split. Up to 10 splits can be recorded per race.

After the Race
As each swimmer finishes the race, the Lane Timer(s) in that lane will press one of the side buttons (Start/Stop) and then Reset on the Watch(es) assigned to that lane. After all Lane Timers press Start/Stop at the end of the race and then Reset, the Dolphin software writes the result file to the C:\CTSDolphin folder on the computer and the next race can be started.

If one or more of the lane timers fails to press Reset after the race, that watch's state will not have a yellow light. Before the next race, use the Reset Timers button (or shortcut r) to force a reset and cause the Dolphin software to write the result file.

Getting the Race Results into your meet management software:
Hy-Tek's Meet Manager:

1. From the Run Menu in MEET MANAGER, press **Ctrl-F3**
2. A list of Dolphin result files for the current **Data Set** (see below for information about data sets) will be displayed with the most recent file at the top.
3. Select the result file and click OK. MM will extract the times and place them in a window so that you can see up to 3 wireless watch times per lane plus the computed average for each lane if there is more than one wireless watch per lane.
    - If there are 3 watches for a given lane, the middle time will be average time.
    - If there are 2 watches for a given lane, the average will be computed based on the rule choice selected in **Run / Preferences / Backup Times**. If you are OK with the times in the window, click Accept and these times will be stored in the database along with the pad and button times already stored. To see the pad times,

the backup button times, and the backup watch times, press **Ctrl-K** or click the **Calc: Ctrl-K** button. When the time adjustment window is displayed, you can compare the backup wireless watch times to the pad time and the backup button average to help you decide what to do if there is a discrepancy between the pad time and then backup button time. See Hy-Tek MM help files for a sample time adjustment window with Dolphin Backup times.

If you are keeping track of races by **Race Number** (see discussion below), you can use the Race # to help you select the correct wireless watch file. If things go smoothly, this race number should be the same for the wireless watch file and the timing console data file.

Splash and other meet management software:
Follow the instructions in your specific meet management software.

How to Select a Data Set for your Meet

A Data Set is a set of results for a given meet or session of a meet. Each time a race is completed, the Dolphin system creates result files in C:\CTSDolphin in two formats: .do3 (standard Dolphin format) and .d04 (Dolphin format including splits). The first 3 characters of the file name are numbers from 001 to 999. These three character numbers define the Data Set number. So when you select a data set, you are selecting a data set of results based on the first three characters of the result files. Subsequent characters of each result file define other information, including race number.

Each time a race is completed, the Dolphin system also appends the race information to an ASCII log file Times.txt.

From within Hy-Tek MM:
To select a Data Set, click on **Run / Interfaces / Timer** and click on **Select Data Set stored from CTSD**. The INTERFACE will display a window with the date and time and the number of races that have been stored for the current data set that MM is pointing to. Remember, you could be running a three day meet and The INTERFACE must know what "data set of meet data" you want to access.

Click on the **Next Meet** or **Previous Meet** buttons to select the appropriate data set. Because there is a date and time shown for when the first file in the data set was created, you can usually figure out which data set to select.

If new Data Sets with a new data set number have been added since starting MM, you can click **Update Data Set** and all data sets will be refreshed for selection.

From Splash or another meet management program:
Follow the instructions given by the software's help files.

Starting Official Instructions

Work with the Computer Operator to make sure that the Dolphin Starter and Watches have been properly set up for your meet, following the Hardware Set Up Instructions (p. 4).

There are two ways to start the Dolphin Watches using the Dolphin Starter. Follow the directions below for the one your facility is using for this meet.

Electronic Start System

*NOTE: The Dolphin Starter must be connected to the electronic start system's **Timer Start** or **Start Output** jack. Connection to any other jack **will** damage the Dolphin Starter.*

1. Use the electronic start system to start the race. The start time will be sent wirelessly from the Dolphin Starter to the Lane Watches, starting them.

2. After the race, press Start/Stop and then Reset on the Dolphin Starter to reset the system for the next race. (At Reset, the Dolphin software will write a result file on the computer for access by meet management software.)

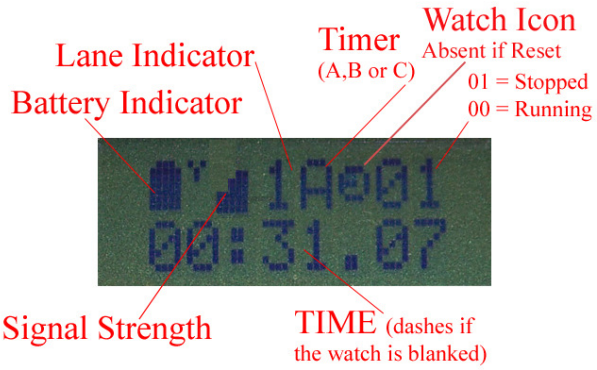
Synchronized Start/Manual Stop

1. Press Start/Stop on the Dolphin Starter simultaneously with the start signal for the swimmers. The start signal will be sent wirelessly from the Dolphin Starter to the Lane Watches, starting them.

2. After the last swimmer touches the wall, press Start/Stop on the Starter, and then Reset. You are now ready for the next race. (At Reset, the Dolphin software will write a result file on the computer for access by meet management software.)

Lane Timer Instructions

You need to know if your facility is using a Synchronized Start or a Wireless Manual Start. Follow the directions below for the one your facility is using.



Synchronized Start (from Electronic Start System or Dolphin Starter)

Note: what you do with your watch is transmitted wirelessly to the meet management computer. Please follow these instructions so that the information received for your lane is correct.

1. The Starter will start all watches.
2. Press one of the side buttons to stop your watch (use whichever is most comfortable for you).
3. IF YOU HAVE BEEN ASKED TO TAKE SPLITS, press one of the side buttons one time for each split. Your watch will display the split time for about 2 seconds, and then show the running time again.
4. You should not press any other buttons, unless you are blanking your lane (see below).

Note: If you take too many splits (this includes taking one or more splits in a race or event which is not recording splits), your watch screen will display the split time and won't automatically display running time after 2 seconds. The watch is still recording running time, and will display it once you press one of the side buttons again, as long as the Starter has not pressed Reset.

When the Starter has reset all the watches in preparation for the next race, the bottom line on your watch will show "RESET," alternating with the time. Also, the watch icon on the top row will be displayed while time is running on the watch, and will disappear when the Starter has reset all the watches for the next race.

Blanking your lane

If there is no swimmer in your lane for the current heat, after the start you can press reset. Your watch will display a line of dashes instead of the time, and this indicates to the computer operator that your lane is blanked. After the Starter has reset the watches, your watch will automatically accept the start signal for the next race.

If you accidentally set dashes (blanked the lane), push Start/Stop to resume timing. The watch is still accurate.

If your watch is not functioning as described here, see the person in charge of the Dolphin system at this meet.

Wireless Manual Start/Stop

Note: what you do with your watch is transmitted wirelessly to the meet management computer. Please follow these instructions so that the information received for your lane is correct. It is important that you press Reset before the next race.

Watch Operation

1. Start your watch (by pressing either side Start/Stop button) with the start signal.
2. Stop your watch (by pressing either side Start/Stop button) when the swimmer in your lane touches the wall at the end of the race.
3. IF YOU HAVE BEEN ASKED TO TAKE SPLITS, press one of the side buttons one time for each split. Your watch will display the split time for about 2 seconds, and then show the running time again.
4. Press Reset to reset your watch for the next race. The watch will display RESET on the second line, alternating with the time. The watch icon will also disappear from the top row on the screen.

Note: If you take too many splits (this includes taking one or more splits in a race or event which is not recording splits), your watch screen will display the split time and won't automatically display running time after 2 seconds. The watch is still recording running time, and will display it once you press one of the side buttons again, as long as you have not pressed Reset.

Blanking your lane

If there is no swimmer in your lane for the current heat, after the start you can press either side button (Start/Stop) and then Reset. Your watch will display a line of dashes instead of the time, and this indicates to the computer operator that your lane is blanked. To prepare for the next race press Reset again. The watch icon will disappear and your watch is ready for the next race.

If you accidentally set dashes (blanking the lane), push either side button (Start/Stop) to resume timing. The watch is still accurate as long as you have not pressed Reset the second time.

If your watch is not functioning as described here, see the person in charge of the Dolphin system at this meet.

Troubleshooting

Do not close the Dolphin window while you are using the Dolphin system!
Wireless information from the Starter and Watches will NOT be saved to your computer if the Dolphin window is not open. It is fine to minimize the window.

How to turn the Dolphin Starter and Watches on/off & how to change settings:

How to turn on & off
Press and hold the Reset button to turn watches and starter on or off.

How to change settings on watches & starter
Press and hold Reset and immediately press the Start/Stop button (on the top of the starter, or either side button on a watch). Hold them both until unit enters the menu. Release the Reset button and then the Start/Stop button.

- Press the Start/Stop button to change the setting for the current menu option.
- Press Reset to advance to the next menu option.

Question	***Solution***
Dolphin.exe is not an option in Hy-Tek Meet Manager	Update Hy-Tek Meet Manager software to the latest version.
CTS Dolphin Backup Mode option is grayed out in Meet Manager software	This optional feature is only available when purchased from Hy-Tek. Shop online at www.hy-tekltd.com or call 866.456.5111.
Dolphin software won't start. Displays error: "No base unit detected!"	Connect the base unit to the computer using the supplied USB cable (or any standard USB cable). Check to make sure both ends of the cable are firmly connected.
Dolphin software locks after opening *OR* Cannot change channel on Dolphin base	Check the firmware version of the Dolphin Base by clicking the "CTS Dolphin Version" text at the bottom center of the screen. Check the website dolphin.coloradotime.com to see if you have the latest version and if not, follow the Dolphin Device Updates instructions (page 18). If after updating, you still have this problem, contact CTS with your version numbers for assistance (customerservice@coloradotime.com or x256 at 800-287-0653 or +1 970-667-1000)
Signal strength dips in software for Dolphin watches	• Check battery level on Watch, and change battery if it is low. • Minimize the obstructions between the Lane Timer and the location of the base unit (this may require the base to be moved to a higher location).
Trouble turning Watches and/or Starter on and off	1. Check that the user is pressing and holding Reset. 2. Replace the battery to see if that solves the problem.

Question	***Solution***
Watches don't start with my electronic start system	1. Make sure the Dolphin Starter is connected to the "Start Output" or "Timer Start" jack only. 2. Check the cable between the Dolphin Starter and the electronic start system. 3. Check the battery level of the electronic start system. 4. Check the battery level of the Dolphin Starter.
Race Files are not available to meet management software *OR* Race Files are not being written	Make sure the Dolphin application is still running. DO NOT CLOSE THE APPLICATION WHILE RACES ARE STILL BEING RUN.
My data is not being saved, or the new race is overwriting the previous race	The data files are written at Reset; ensure that the right person/people are pressing Reset at the right time: • If using Dolphin Starter: the files are written after the Starting Official presses Start/Stop at the end of the race and then Reset. *Lane Timers should **not** press Reset if the Dolphin Starter is being used.* • If using the watches without the starter: the files are written after *every* Lane Timer presses Start/Stop at the end of the race and then Reset. If one or more lane timer fails to press reset, the file will not be written. You can overcome lane timers & starters failure to press Reset by forcing a reset with the Reset Timers button. See Forced Reset on page 7 for details.
Extra data files appear in meet management software *OR* Times do not correlate between Dolphin and meet management software list	• Standalone: Make certain that the Lane Timers are not starting, stopping and resetting the watches unless it is to time an event. • Synchronized Start: Make a note of any false starts or mistimed events so that the Computer Operator knows when an event or a data set should be skipped.
Dolphin device update did not succeed.	• Make sure the base and all devices are set to the same channel. • Make sure all other device types are off while updating one type of device. • When updating watches, make sure all watches are set to separate Lane/Timer combinations (i.e., two watches are not both set as Lane 3, Timer A). • Follow the updating instructions step by step, and complete the steps in the order described.
Watches turn themselves off	• Make sure the base is still connected to the computer. • Plug the base into another USB power source if you're using the watches without transmitting to a computer.

I have a question about Hy-Tek's Meet Manager	*If you have questions about using Hy-Tek MEET MANAGER (MM), please see the help files within MM (from the Run screen, press F1 or select the Help Menu), or visit www.hy-tekltd.com and see the help files/user guide there. Hy-Tek has very useful, step-by-step help screens.*
I have a question about Splash	*If you have questions about using Splash meet management software, please see the help files within Splash (press F1 or select the Help Menu), or visit Splash's website www.splash-software.ch.*

Dolphin Device Updates

As system updates become available, any of the devices (base, starter, or timer) in the Dolphin system can be reprogrammed via the Dolphin application. The scoreboard adapter, which is an optional add-on to the Dolphin system, can also be reprogrammed via the Dolphin application. The files required to update your Dolphin system can be found at the Colorado Time Systems website and at Dolphin.coloradotime.com.

IMPORTANT NOTES:

1. ***Each type of device*** (base, starter and watch, as well as the scoreboard adapter) ***must be programmed separately from the other device types***. All watches can be programmed at one time.
2. ***On watches and the starter, check the battery's charge level before starting. If the battery is nearly dead, replace it before updating.***
3. ***Follow the steps exactly as written. Having extra devices running, skipping steps or performing them in a different order is likely to cause the update(s) to fail.***

<u>Base Programming Procedure (Do this first!)</u>

1. Download the update files from the website Dolphin.coloradotime.com. Note the version number(s).
2. Make sure all Dolphin watches and the starter are turned off.
3. Plug your Dolphin base unit into your computer using the USB cable.
4. Open the Dolphin from software.
5. Click on "CTS Dolphin version" in very small type at the bottom of the page.
    a. Click Update Base Code.
    b. Browse to the firmware file and select it. If you saved it directly to the laptop, it will be in C:\CTSDolphin\firmware. If you saved it to a removable drive, browse there. The file will have a name of the format BASExxx.DBC, where xxx is the version number.
    c. Click upload.
6. During the update process, a progress bar is displayed in the Upload Code window. When the base device has successfully completed receiving the update, the yellow/green pair of LEDs will be on.
    a. If there is an error updating the base, only the yellow LED will blink. In case of an error, download the update from the website again, and try uploading it again. Make sure that the base is connected to a working USB port during the entire upload. If it doesn't work again, email CTS customer service at customerservice@coloradotime.com or call 970-667-1000 x256.
7. Exit Dolphin.
8. Disconnect and reconnect the base.
9. Finally, restart Dolphin. The base unit is now updated.
10. Verify the base's version number:
    a. Click on "CTS Dolphin version" in very small type at the bottom of the page.
    b. Click Update Base Code, and verify that the version number in the update code window matches the version you downloaded from the CTS website.

Watches & Starter Programming Procedure

1. Update the Base before you update either the watches or the starter (see above).
2. Perform the following steps, unless you have already done them:
    a. Download the update files from the website Dolphin.coloradotime.com, and note the version number(s).
    b. Plug your Dolphin base unit into your computer using the USB cable.
    c. Open the Dolphin software.
3. The Watches must be programmed separately from the Starter. Make sure that the watches are off when you are programming the Starter, and that the Starter is off when you are programming the Watches.
4. When programming watches, make sure that all watches are set to separate Lane/Timer combinations (i.e., two watches are not both set as Lane 3, Timer A).
5. Make sure that the device(s) being updated are set to the same channel as the base.
6. Enter the menu on the device(s) being programmed: Press and hold Reset and immediately press the Start/Stop button (on the top of the starter, or either side button on a watch). Hold them both until unit enters the menu. Release the Reset button and then the Start/Stop button.
7. On the computer, click on "CTS Dolphin version" in very small type at the bottom of the page.
    a. Click Update Code for the device you are updating.
    b. Browse to the firmware file and select it. If you saved it directly to the laptop, it will be in C:\CTSDolphin\firmware. If you saved it to a removable drive, browse there.
    c. The update file will be named to include the device name ("STARTxxx.DSC" for the starter, or "TIMERxxx.DTC" for the watches).
    d. Click upload.
8. During the update process, a progress bar is displayed in the Upload Code window on the computer, and the LCD of the Starter or Watches will also display their progress and status. When a watch or starter is successfully updated, the unit will turn off in a few seconds after reaching 100%. The yellow LED on the base will blink. If the LCD on the device doesn't display a progress screen, the update didn't work; start the process again, making sure to follow all of the instructions in the order described.
9. Exit Dolphin.
10. Disconnect and reconnect the base.
11. Finally, restart Dolphin.
12. Re-enter the menu on the device you programmed and verify the version number, which is shown below the channel number.
13. The update is complete for the type of device (watches or starter) you programmed.
14. Repeat the Watches and Starter Programming Procedure if you need to update the other type of device.

Scoreboard Adapter Programming Procedure

1. Download the update files from dolphin.coloradotime.com. Note the version number(s).
2. Update the Base Unit (see instructions on the other side of this page).
3. Update the Scoreboard Adapter:
    a. Make sure all Dolphin watches and the starter are turned off.
    b. Plug your Dolphin *Base* unit into your computer using the USB cable provided.
    c. Connect the scoreboard adapter to the scoreboard. Turn on/plug in the scoreboard.
        i. If the adapter's LEDs light up you will not need to use the power supply.
        ii. If the LEDs do not light, plug the plug the power supply into the adapter, and to a wall outlet.
    d. Open the Dolphin software.
    e. Enable the Scoreboard:
        i. Click the Scoreboard settings button
        ii. Click the Scoreboard Enabled box
        iii. Close the Scoreboard Interfaces dialog box
    f. Click on "CTS Dolphin version" in very small type at the bottom of the page.
        i. Click Update Base Code and browse to the firmware file in C:\CTSDolphin\firmware. Select the scoreboard code (SBxxx.DDC), and click Upload.
        ii. Allow the upload to complete. The screen will display status.
    g. Exit Dolphin.
    h. Disconnect the scoreboard adapter from the scoreboard, and from power if it is plugged in.
    i. Disconnect and reconnect the base.
    j. Reconnect the scoreboard adapter to the scoreboard, and to power if necessary.
    k. Finally, restart Dolphin. The new revision of the scoreboard adapter will display on the scoreboard, along with the channel.